

Applicant : Neil H. Bander
Serial No. : 09/929,665
Filed : August 13, 2001
Page : 2

Attorney's Docket No.: 10448-184009/MP11996.
037P2RDV1ACNA1

sequence of SEQ ID NO:19 (variable light chain) or an amino acid sequence of the variable light chain produced by the hybridoma having ATCC deposit no. HB-12126.

~~146.~~ An isolated antibody or antigen binding portion thereof according to claim 144 which comprises an antigen binding portion of an amino acid sequence selected from the group consisting of SEQ ID NO:8 (variable heavy chain) and SEQ ID NO:19 (variable light chain).

~~147.~~ An isolated antibody or antigen binding portion thereof according to claim 144 which comprises an antigen binding portion of an amino acid sequence from SEQ ID NO:8 (variable heavy chain) and an antigen binding portion of an amino acid sequence from SEQ ID NO:19 (variable light chain).

~~148.~~ An isolated antibody or antigen binding portion thereof according to claim 144 which comprises an antigen binding portion of an amino acid sequence selected from the group consisting of an amino acid sequence of the variable heavy chain produced by the hybridoma having ATCC deposit no. HB-12126, and an amino acid sequence of the variable light chain produced by the hybridoma having ATCC deposit no. HB-12126.

~~149.~~ An isolated antibody or antigen binding portion thereof according to claim 144 which comprises an antigen binding portion of an amino acid sequence of the variable heavy chain produced by the hybridoma having ATCC deposit no. HB-12126 and an antigen binding portion of an amino acid sequence of the variable heavy chain produced by the hybridoma having ATCC deposit no. HB-12126.

~~150.~~ An isolated antibody or antigen binding portion thereof, comprising an antigen binding portion of an amino acid sequence encoded by a nucleic acid sequence selected from the group consisting of SEQ ID NO:6 (variable heavy chain), SEQ ID NO:17 (variable light chain), a nucleic acid sequence which encodes the variable heavy chain produced by the hybridoma having ATCC deposit no. HB-12126, and a nucleic acid sequence which encodes the variable light chain produced by the hybridoma having ATCC deposit no. HB-12126.

Applicant : Neil H. Bander
Serial No. : 09/929,665
Filed : August 13, 2001
Page : 3

Attorney's Docket No.: 10448-184009/ MPI1996-
037P2RDV1ACNA1

~~151.~~ An isolated antibody or antigen binding portion thereof according to claim 150 which comprises an antigen binding portion encoded by a nucleic acid sequence of SEQ ID NO:6 (variable heavy chain) or a nucleic acid sequence which encodes the variable heavy chain of the hybridoma having ATCC deposit no. HB-12126 and an antigen binding portion encoded by a nucleic acid sequence of SEQ ID NO:17 (variable light chain) or a nucleic acid sequence which encodes the variable light chain produced by the hybridoma having ATCC deposit no. HB-12126.

C
~~152.~~ An isolated antibody or antigen binding portion thereof according to claim 150 which comprises an antigen binding portion of an amino acid sequence encoded by a nucleic acid sequence selected from the group consisting of SEQ ID NO:6 (variable heavy chain) and SEQ ID NO:17 (variable light chain).

~~153.~~ An isolated antibody or antigen binding portion thereof according to claim 150 which comprises an antigen binding portion of an amino acid sequence encoded by a nucleic acid sequence from SEQ ID NO:6 (variable heavy chain) and an antigen binding portion of an amino acid sequence encoded by a nucleic acid sequence from SEQ ID NO:17 (variable light chain).

~~154.~~ An isolated antibody or antigen binding portion thereof according to claim 150 which comprises an antigen binding portion of an amino acid sequence encoded by a nucleic acid sequence selected from the group consisting of a nucleic acid sequence which encodes the variable heavy chain produced by the hybridoma having ATCC deposit no. HB-12126, and a nucleic acid sequence which encodes the variable light chain produced by the hybridoma having ATCC deposit no. HB-12126.

~~155.~~ An isolated antibody or antigen binding portion thereof according to claim 150 which comprises an antigen binding portion of an amino acid sequence encoded by a nucleic acid sequence which encodes the variable heavy chain produced by the hybridoma having ATCC

Applicant : Neil H. Bander
Serial No. : 09/929,665
Filed : August 13, 2001
Page : 4

Attorney's Docket No.: 10448-184009/ MPI1996-
037P2RDV1ACNA1

deposit no. HB-12126 and an antigen binding portion of an amino acid sequence encoded by a nucleic acid sequence which encodes the variable heavy chain produced by the hybridoma having ATCC deposit no. HB-12126.

~~156.~~ 156. An isolated antibody or antigen binding portion thereof according to claim 144 or 150, wherein the antibody is a monoclonal antibody.

~~157.~~ 157. An isolated antibody or antigen binding portion thereof according to claim 144 or 150, wherein the antibody or antigen binding portion thereof is internalized with the prostate specific membrane antigen.

~~158.~~ 158. An isolated antibody or antigen binding portion thereof according to claim 144 or 150, wherein the antigen binding portion is selected from the group consisting of a Fab fragment, a F(ab')₂ fragment, and a Fv fragment.

~~159.~~ 159. An isolated antibody or antigen binding portion thereof according to claim 144 or 150 further comprising a cytotoxic drug.

~~160.~~ 160. An isolated antibody or antigen binding portion thereof according to claim 159, wherein the cytotoxic drug is selected from the group consisting of a therapeutic drug, a compound emitting radiation, molecules of plant, fungal, or bacterial origin, biological proteins, and mixtures thereof.

~~161.~~ 161. An isolated antibody or antigen binding portion thereof according to claim 159, wherein the cytotoxic drug is a compound emitting radiation.

~~162.~~ 162. An isolated antibody or antigen binding portion thereof according to claim 161, wherein the compound emitting radiation is an alpha-emitter.

~~163.~~ 163. An isolated antibody or antigen binding portion thereof according to claim 162,

Applicant : Neil H. Bander
Serial No. : 09/929,665
Filed : August 13, 2001
Page : 5

Attorney's Docket No.: 10448-184009/ MPI1996-
037P2RDV1ACNA1

wherein the alpha-emitter is selected from the group consisting of ^{212}Bi , ^{213}Bi , and ^{211}At .

~~163~~
164. An isolated antibody or antigen binding portion thereof according to claim 161,
wherein the compound emitting radiation is a beta-emitter.

~~164~~
165. An isolated antibody or antigen binding portion thereof according to claim 164,
wherein the beta-emitter is ^{186}Re .

~~165~~
166. An isolated antibody or antigen binding portion thereof according to claim 164,
wherein the beta-emitter is ^{90}Y .

~~166~~
167. An isolated antibody or antigen binding portion thereof according to claim 161,
wherein the compound emitting radiation is a gamma-emitter.

~~167~~
168. An isolated antibody or antigen binding portion thereof according to claim 167,
wherein the gamma-emitter is ^{131}I .

~~168~~
169. An isolated antibody or antigen binding portion thereof according to claim 160,
wherein the cytotoxic drug is a molecule of bacterial origin.

~~169~~
170. An isolated antibody or antigen binding portion thereof according to claim 160,
wherein the cytotoxic drug is a molecule of plant origin.

~~170~~
171. An isolated antibody or antigen binding portion thereof according to claim 160,
wherein the cytotoxic drug is a biological protein.

~~171~~
172. An isolated antibody or antigen binding portion thereof according to claim 144 or
150 further comprising a label.

~~172~~
173. An isolated antibody or antigen binding portion thereof according to claim 172,

Applicant : Neil H. Bander
Serial No. : 09/929,665
Filed : August 13, 2001
Page : 6

Attorney's Docket No.: 10448-184009/ MPI1996-
037P2RDV1ACNA1

wherein the label is selected from the group consisting of a fluorescent label, a biologically-active enzyme label, a radiolabel, a nuclear magnetic resonance active label, a luminescent label, and a chromophore label.

~~174~~. An isolated antibody or antigen binding portion thereof according to claim 173, wherein the radiolabel is selected from the group consisting of ^{32}P , ^{125}I , ^3H , ^{14}C , and ^{188}Rh .

~~175~~. An isolated antibody or antigen binding portion thereof according to claim 173, wherein the label is the radiolabel ^{131}I .

~~176~~. An isolated antibody or antigen binding portion thereof according to claim 173, wherein the label is the radiolabel ^{99}mTc .

~~177~~. An isolated antibody or antigen binding portion thereof according to claim 173, wherein the label is the radiolabel ^{111}In .

~~178~~. An isolated cell which produces the antibody of claim 144 or 150.

~~179~~. The cell of claim 178, which is a lymphocytic cell line.

~~180~~. A composition comprising:

an antibody or antigen binding portion thereof according to claim 144 or 150; and
a pharmaceutically acceptable carrier, excipient, or stabilizer.

~~181~~. A kit for detecting prostate cancer comprising:

an antibody or antigen binding portion thereof according to claim 172 and means to detect the label.

~~182~~. A kit according to claim 181, wherein the label is selected from the group consisting of a fluorescent label, a biologically-active enzyme label, a radiolabel, a nuclear

Applicant : Neil H. Bander
Serial No. : 09/929,665
Filed : August 13, 2001
Page : 7

Attorney's Docket No.: 10448-184009/ MP11996-
037P2RDV1ACNA1

magnetic resonance active label, a luminescent label, and a chromophore label.

C
183. A kit according to claim 181, wherein the antibody or antigen binding portion thereof is in a composition further comprising a pharmaceutically acceptable carrier, excipient, or stabilizer.

